BULLETIN

of the

ONTARIO COLLEGE OF PHARMACY

Vol. VI, No. 4 TORONTO, Ontario September, 1957

H. J. Fuller, Editor

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The Ontario College of Pharmacy is the pharmaceutical licensing body for the Province of Ontario, Canada. All pharmacists licensed in Ontario are *IPSO FACTO* members of the College.

The majority of contributors to the Bulletin are members of the Faculty of Pharmacy, University of Toronto. However, contributions are welcomed from all members of the College.

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"THE CHANGING ROLE OF PHARMACY"

Dr. F. N. Hughes

When we speak of "The **Changing** Role of Pharmacy", we obviously imply that the role is not static but dynamic. Just as the practice of medicine is constantly changing in accord with the multitude of new discoveries, so is the practice of pharmacy. Just as medical education has been sensitive to these changes, so has pharmaceutical education adapted to meet more adequately the demands of the new era, and so will both continue to adjust.

What are some of the features of this "changing role"? Traditionally, since the separation of the practice of pharmacy and medicine in 1240 by Frederick II of the Kingdom of the Two Sicilies, the pharmacist has been responsible for the selection, isolation, preparation, preservation, testing, supplying, compounding and dispensing of drugs and medicines. Not many decades ago the preparation of medicines was largerly done in the retail pharmacy. Tinctures, waters, liquid extracts, pills, powders, ointments, plasters, etc., using largely crude plant and animal materials or simple chemicals were all prepared in the "back shop" usually behind the dispensary. Many were kept in stock in characteristic drug jars or bottles in the dispensary and even in the "front shop" of the pharmacy. The days of the pharmaceutical specialty had not yet dawned. The pharmacopoeia and various formularies were used so frequently as reference books that they became dog-eared and worn. The physician's prescription was much more than the name of a specialty product.

In those days the practice of pharmacy like the practice of medicine was largely empirical, although we were several centuries removed from the days when the horn of an animal that didn't exist was sold for as much as $75,000, so-called "unicorn's horns" which were supposed to be an antidote for poisons of all kinds. With the increasing tempo of scientific development in the early decades of the century, especially after World War I, the pharmaceutical industry began to grow as more and more isolates and synthetics were discovered. These required apparatus and techniques unavailable to the dispensing pharmacist. Then the sulfonamides, the antibiotics, the antihistamines, the ganglionic blocking agents, the ataraxics, and a host of others appeared.

And so the profession of pharmacy was changing. In 1900, a graduate in pharmacy in Ontario almost certainly became a retail pharmacist. But as the pharmaceutical industry expanded and pharmaceutical practice in hospitals increased, many other types of employment opened up for the pharmacy graduates. In order to meet the challenge of the new era university curricula in pharmacy were modified and enlarged. Unfortunately, in Ontario this move should have

taken place much earlier than it did. We started late and have had to catch up as quickly as possible. The present four-year academic programme has only been established for nine years in this province and has only graduated about 320 since 1952. It has required a strong, united effort to reach the present stage in such a short time. All branches of pharmacy have been united since 1945 in an unique organization, "The Canadian Foundation for the Advancement of Pharmacy". R. A. Kuever once defined an association as "a system which, functioning in its collectiveness, does many things and some of these things are right.' The "Foundation" certainly does not conform precisely to this definition, for most of what it has done has been right. It has provided about $150,000 for the improvement of pharmaceutical education — now at the rate of about $20,000 annually. It was a chief factor responsible for the increase in qualified full-time faculty members in Canadian schools of pharmacy from about ten in 1945 to about fifty in 1956. Graduate programmes of study have been developed in five of the eight schools of pharmacy. Educationally the challenge is being met. Young men and women are taking their place in all branches of the profession fully qualified to meet the needs of changing times. Let us see now how the various branches of pharmacy have been affected by the developments.

A Group of Vocations

We can list some 15 or 20 different types of positions open to graduates in the various branches of pharmacy. Many of these posts differ widely from each other so we can correctly say that Pharmacy embraces a variety of vocations. Nevertheless all of them are concerned with supplying drugs and medicines and so in this sense they all contribute to the traditional function of pharmacy in society. While we shall deal chiefly with the changing role of the retail pharmacist and hospital pharmacist, we must make reference to the pharmaceutical industry, because it undergirds much of the structure of modern pharmacy.

Pharmaceutical Industry

It is no exaggeration to say the physician and pharmacist to-day could not practice using modern therapy without the pharmaceutical industry. Dr. Perrin Long wrote recently: "I have said that doctors need the industry and the industry needs doctors. Let's look at some examples of cooperation between doctors and the industry. During the past thirty-five years we have witnessed a continuing flow of mutual effort between the industry and doctors in the development of therapeutically helpful, even life-saving compounds. Physicians and scientists took their initial findings relative to insulin, liver, certain of the vitamins, estrogens and androgens, the first three antibiotics, certain steroids and corticoids, plasma and the plasma expanders, polio vaccine, typhus vaccine, and other interesting products to the industry for development, refinement, and production. The scientists of the industry, on the other hand, have come to the physicians with the antihistamines, beginning with ephefrine, certain vitamins, certain of the early steroids, many hormones, the major sulfonamides, purified digitalis bodies, many of the antibiotics, antimalarial agents, DDT, the most recent corticoids, the 'tranquilizers', antidiuretic agents, and other useful products, asking for their cooperation in the pharmacological testing and clinical development of these products."

Yes, the manufacturing pharmacist is always striving to produce better, safer drugs in the most effective dosage forms.

Retail Pharmacist

(a) As a consultant to the Physician

Outwardly the position and responsibility of the pharmacist in the community may not seem to have changed greatly. It is true that his pharmacy has what might be termed a "more modern" appearance, but I imagine the public, in general, do not consider that his responsibility as a member of the health service professions has altered appreciably. Nevertheless there has been a profound change and one to which the older practitioner is still adjusting.

To-day he is not nearly as much concerned with the art of preparing medicines as he is with understanding a host of complex chemical substances which constitute a large part of modern medication. Among the health professions he is the one who has had to become the expert on drugs. This is his specialty and so the art which he practises to-day must be based on a broader and deeper foundation of sciences than ever before — chemistry (inorganic, organic, physical), physics, the biological sciences (botany, zoology, physiology biochemistry, pharmacology).

It has frequently been stated that medication has changed so much that up to 90 percent of the prescriptions to-day could not have been filled 15 years ago. The manner in which this has affected pharmacy can in part be judged by a comparison of the types of products in the catalogues of a large manufacturer in 1921 and today.

	1921	1957
Pills	528	9
Syrups	87	27
Elixirs	184	45
Fluid Extracts	340	32
Tinctures	71	29
Tablets	245	1,079
Ampoules	133	201

The majority of the 1957 products are specialties under a trade name. When we add to these numbers those of all the companies in the field, the numbers of products which are available is staggering. Not including all different dosage forms, there are in Canada more than 5,000 such prescription specialties.

An even greater problem is created by the multitude of new items and by the short life of so many products as their limitations become evident in wide clinical practice or as superior agents are developed. In the United States in 1956 Paul de Haen reports that a survey not guaranteed to be complete) showed that 401 new products were introduced in 1956, 42 were new single chemicals not previously known, 79 were duplicate single products (e.g. reserpine, etc), 280 were compounded, and 66 were new dosage forms of previous products.

In my task of editing Canadian New Products Index, twice a year, our figures are similar. For the first six months of 1956, there were 195 new introductions, 104 of which carried new trade names. In revising the three indexes in the last issue of this publication, there were approximately 4,000 index changes made.

This gives us a statistical concept of the situation today. In addition to sheer quantity, however, the qualitative aspect imposes an added important factor. Most of these new products are or contain — potent complex substances with reasonably well understood pharmacologic and therapeutic effects. Thus we begin to comprehend something of the importance of the new role which the dispensing pharmacist must play to-day.

It is obviously impossible for the medical practitioner to understand all of the vast array of therapeutic agents to-day. He does not have the time nor is his course of study designed for this purpose. And so the modern pharmacist is developing his new role as a consultant to the medical, dental and veterinary practitioner. I am convinced that this function must grow and expand with the physician placing more and more dependence upon the pharmacist. Dr. F. P. Rhoads in the Bulletin, Michigan Academy of General Practice wrote recently: "The Pharmacist is truly our associate. The practice of modern medicine with its bewildering array of therapeutic agents along with their multitudinous forms would be even more difficult without his professional know-how . . . He is second only to the medical man in the minds and hearts of those seeking medical aid. For every 'counter prescriber' in his ranks, of whom we complain, there are two 'office dispensers' among our own. His ethics and zeal to serve the public are as ardent as ours. With him "rectitude is immutable even to the touch of the alchemist's stone". Let us then fully recognize his professional competency and integrity." Dean Harrell, College of Medicine,University of Florida recently expressed the view that the relationship "between the physician and pharmacist should become more effective. He said: "the physician looks to the pharmacist for detailed information on new drugs, for advice on pharmaceutical specialties."

(b) **As a consultant to the Public**

In their wisdom the appropriate governmental authorities have made the pharmacist the custodian of poisons and drugs which may be sold to the public. Thus the pharmacist has an important responsibility in advising persons respecting home remedies of all kinds. He has always been in this position, but to-day the role becomes more important when the uses and the dangers of many drugs are better understood than formerly. And so we emphasize to the pharmacy student and to the practising pharmacist his grave responsibility in this connection. He knows that he must use his knowledge as a screen, on the one hand to protect the public from potentially harmful or useless medication and on the other to advise them to secure medical treatment when, from information supplied, it is possible or evident that self-medication may be unwise.

Hospital Pharmacist

No branch of pharmacy has advanced more rapidly than hospital pharmacy. This is natural when we see the position occupied by the hospital pharmacist against the background of modern medication. He is in frequent contact with members of the medical staff. He is readily available for advice respecting medication. As a member of the Pharmacy and Therapeutics Committee he is in an excellent position to suggest policies which may effect substantial financial savings to the hospital. This is steadily developing into a type or practice which

may become a genuine "specialty" in pharmacy.

In light of the essential role being played by pharmacy to-day, it is anomalous that fewer than 30 percent of Ontario hospitals of 50 beds and over should have qualified pharmaceutical service. I believe a move is now under way to improve this situation. I am sure the Ontario Medical Association can be counted upon to support it.

Conclusion

It has only been possible to present a part of the changing role of pharmacy. For example, I have said nothing about the research programmes which are developing in our schools and in the industry. Nevertheless, I believe it is evident that Pharmacy and Medicine must be drawn more closely together as the science of pharmacology and the science and art of drug therapy advance. This seems inevitable because the education and practice of the two professions complement each other. The graduate in medicine has the foundation to become an expert diagnostician and therapeutist, while his pharmaceutical confrere's education properly fits him to become an expert on drugs.

One wonders, too, if those of us charged with the responsibility of educating the various members of the health professions have had enough consultation respecting our programmes. This thought was well expressed by Dr. Robert C. Wilson in 1944 when he said: "Regimented medical practice, pharmaceutical practice, and public health practice would indeed become unnecessary and undesirable from governmental and public viewpoints if all of the agencies training young men and women to serve in the public health fields could sit down together and not only integrate their programmes of instruction, but, as well, integrate their ideals of service."

F. N. HUGHES.

(This address **THE CHANGING ROLE OF PHARMACY** was delivered by Dean F. N. Hughes on May 28, at the Ontario Medical Association Council and Medical Exhibitors' Luncheon).

SURVEY OF RETAIL PHARMACY OPERATIONS IN ONTARIO IN 1956

Most pharmacists in Canada are familiar with the Annual Survey of Retail Pharmacy Operations conducted by the Canadian Pharmaceutical Association. The Survey for 1956 appeared in the August issue of the Canadian Pharmaceutical Journal. Out of the 463 pharmacies across Canada appearing in the Survey, 173 or 37% were located in Ontario. Chart #18 on page 44 of the August issue of the C.Ph.J. gives the average costs and profits of Ontario pharmacies, classified according to sales volume. The charts that follow here, break down each of these sales volume categories further according to population size.

For the first time, the pharmacists of Ontario can compare their operations with those of pharmacists in like situations in their own province. A careful study of the data, in many cases, should help the pharmacist to improve his financial position.

Few generalizations appear possible. The percentage relationship of prescription sales to total sales appears to increase with an increase in sales volume and an increase in population size until the above $100,000 sales category and the population size of Toronto is

Costs in 1956 Ontario Pharmacies With

1	34 Pharmacies	Below 1,000 Population 9 Pharmacies
Sales	$40,756—100.0%	$37,883—100.0%
Cost of Goods Sold	28,081— 68.9%	27,466— 72.5%
Gross Margin	12,675— 31.1%	10,417— 27.5%
EXPENSES:		
Proprietor's or Manager's Salary	$4,646—11.4%	$3,485— 9.2%
Employees' Wages	1,956— 4.8%	1,818— 4.8%
Rent	858— 2.1%	606— 1.6%
Advertising	530— 1.3%	568— 1.5%
Delivery	204— 0.5%	265— 0.7%
Depreciation on Fixtures and Equipment	408— 1.0%	227— 0.6%
Heat, Light, Power	367— 0.9%	379— 1.0%
Taxes	122— 0.3%	76— 0.2%
Insurance	203— 0.5%	152— 0.4%
Interest	203— 0.5%	114— 0.3%
Repair	163— 0.4%	189— 0.5%
Telephone	122— 0.3%	152— 0.4%
Bad Debts	40— 0.1%	38— 0.1%
Miscellaneous	448— 1.1%	492— 1.3%
Total Expenses	$10,270—25.2%	$ 8,561—22.6%
NET PROFIT	$ 2,405— 5.9%	$ 1,856— 4.9%
Add: Other Income	$ 352	$ 589
Proprietor's Salary	$ 4,646	$ 3,485
TOTAL INCOME	$ 7,403($7,368)	$ 5,930($5,460)
Value of Merchandise Stock	$10,165	$ 9,835
Annual Rate of Turnover	2.9	3.2
Average Value of Fixtures	$ 3,149	$ 2,671
Average Accounts Receivable	$ 638	$ 995
Average Accounts Payable	$ 2,070	$ 1,934
Average Price per Rx	$ 2.59	$ 1.97
Average Number of Rx	2,350	1,914
Average Sales of Rx	$ 6,101	$ 3,780
Ratio of Rx Sales to Total Sales	14.6%	9.5%

Sales Volume $20,000 to $50,000

1,000 to 5,000 Population 9 Pharmacies	5,000 to 20,000 Population 6 Pharmacies	20,000 to 50,000 Population 5 Pharmacies	Above 50,000 Population 5 Pharmacies
$42,410—100.0%	$44,801—100.0%	$43,362—100.0%	$35,490—100.0%
28,076— 66.2%	29,076— 64.9%	30,874— 71.2%	24,631— 69.4%
14,334— 33.8%	15,725— 35.1%	12,488— 28.8%	10,859— 30.6%
$ 4,962—11.7%	$ 5,690—12.7%	$ 5,377—12.4%	$ 4,436—12.5%
2,799— 6.6%	2,464— 5.5%	997— 2.3%	1,065— 3.0%
891— 2.1%	1,165— 2.6%	997— 2.3%	887— 2.5%
424— 1.0%	717— 1.6%	433— 1.0%	568— 1.6%
85— 0.2%	269— 0.6%	390— 0.9%	106— 0.3%
679— 1.6%	179— 0.4%	433— 1.0%	497— 1.4%
424— 1.0%	314— 0.7%	347— 0.8%	284— 0.8%
170— 0.4%	89— 0.2%	174— 0.4%	106— 0.3%
212— 0.5%	314— 0.7%	130— 0.3%	142— 0.4%
339— 0.8%	134— 0.3%	44— 0.1%	178— 0.5%
254— 0.6%	45— 0.1%	130— 0.3%	213— 0.6%
127— 0.3%	134— 0.3%	130— 0.3%	142— 0.4%
42— 0.1%			35— 0.1%
466— 1.1%	403— 0.9%	521— 1.2%	355— 1.0%
$11,874—28.0%	$11,917—26.6%	$10,103—23.3%	$ 9,014—25.4%
$ 2,460— 5.8%	$ 3,808— 8.5%	$ 2,385— 5.5%	$ 1,845— 5.2%
$ 469	$ 6	$ 329	$ 148
$ 4,962	$ 5,690	$ 5,377	$ 4,436
$ 7,891($7,928)	$ 9,504($9,476)	$ 8,091($8,271)	$ 6,429($6,359)
$10,943	$10,189	$10,296	$ 9,202
2.7	3.0	3.1	3.0
$ 3,889	$ 2,579	$ 1,375	$ 4,250
$ 736	$ 489	$ 204	$ 259
$ 2,003	$ 2,515	$ 2,081	$ 980
$ 3.02	$ 3.03		$ 2.38
2,908	1,995		2,468
$ 8,792	$ 6,048		$ 5,885
19.3%	14.5%		15.1%

Costs in 1956 in Ontario Pharmacies

2	47 Pharmacies	Under 5,000 Population 12 Pharmacies
Sales	$62,669—100.0%	$59,497—100.0%
Cost of Goods Sold	43,179— 68.9%	41,232— 69.3%
Gross Margin	19,490— 31.1%	18,265— 30.7%
EXPENSES:		
Proprietor's or Manager's Salary	$ 5,828— 9.3%	$ 5,414— 9.1%
Employees' Wages	5,264— 8.4%	4,641— 7.8%
Rent	1,504— 2.4%	1,249— 2.1%
Advertising	564— 0.9%	535— 0.9%
Delivery	502— 0.8%	417— 0.7%
Depreciation on Fixtures and Equipment	689— 1.1%	1,012— 1.7%
Heat, Light, Power	376— 0.6%	476— 0.8%
Taxes	125— 0.2%	59— 0.1%
Insurance	251— 0.4%	238— 0.4%
Interest	125— 0.2%	179— 0.3%
Repair	251— 0.4%	297— 0.5%
Telephone	188— 0.3%	119— 0.2%
Bad Debts	63— 0.1%	
Miscellaneous	815— 1.3%	357— 0.6%
Total Expenses	$16,545—26.4%	$14,993—25.2%
NET PROFIT	$ 2,945— 4.7%	$ 3,272— 5.5%
Add: Other Income	$ 298	$ 333
Proprietor's Salary	$ 5,828	$ 5,414
TOTAL INCOME	$ 9,071($9,016)	$ 9,019($8,946)
Value of Merchandise Stock	$11,849	$12,067
Annual Rate of Turnover	4.0	3.6
Average Value of Fixtures	$ 4,385	$ 5,344
Average Accounts Receivable	$ 637	$ 734
Average Accounts Payable	$ 3,481	$ 3,767
Average Price per Rx	$ 2.53	$ 2.34
Average Number of Rx	3,730	3,688
Average Sales of Rx	$ 5,873	$ 8,663
Ratio of Rx Sales of Total Sales	15.3%	14.2%

With Sales Volume $50,000 to $75,000

5,000 to 20,000 Population 8 Pharmacies	20,000 to 100,000 Population 9 Pharmacies	100,000 to 500,000 Population 5 Pharmacies	TORONTO 13 Pharmacies
$63,341—100.0%	$59,441—100.0%	$62,123—100.0%	$67,632—100.0%
42,312— 66.8%	39,469— 66.4%	44,667— 71.9%	47,681— 70.5%
21.029— 33.2%	19,972— 33.6%	17,456—28.1%	19,951— 29.5%
$ 6,904—10.9%	$ 6,241—10.5%	$ 4,411— 7.1%	$ 5,816— 8.6%
5,004— 7.9%	5,290— 8.9%	6,150— 9.9%	5,613— 8.3%
1,077— 1.7%	1,784— 3.0%	1,305— 2.1%	1,894— 2.8%
824— 1.3%	594— 1.0%	621— 1.0%	406— 0.6%
253— 0.4%	297— 0.5%	621— 1.0%	947— 1.4%
380— 0.6%	535— 0.9%	746— 1.2%	609— 0.9%
507— 0.8%	297— 0.5%	311— 0.5%	338— 0.5%
253— 0.4%	119— 0.2%	124— 0.2%	203— 0.3%
190— 0.3%	297— 0.5%	186— 0.3%	203— 0.3%
127— 0.2%	119— 0.2%	186— 0.3%	68— 0.1%
317— 0.5%	238— 0.4%	186— 0.3%	135— 0.2%
127— 0.2%	119— 0.2%	311— 0.5%	270— 0.4%
63— 0.1%	59— 0.1%		
1,203— 1.9%	773— 1.3%	621— 1.0%	1,150— 1.7%
$17,229—27.2%	$16,762—28.2%	$15,779—25.4%	$17,652—26.1%
$ 3,800— 6.0%	$ 3,210— 5.4%	$ 1,677— 2.7%	$ 2,299— 3.4%
$ 229	$ 312	$ 746	$ 126
$ 6,904	$ 6,241	$ 4,411	$ 5,816
$10,933($11,219)	$ 9,763($9,768)	$ 6,834($6,734)	$ 8,241($8,084)
$13,935	$10,784	$ 9,488	$11,099
3.2	3.2	4.9	4.5
$ 3,581	$ 4,828	$ 4,500	$ 3,510
$ 1,851	$ 1,102	$ 631	$ 538
$ 4,406	$ 2,100	$ 4,561	$ 3,129
$ 2.07	$ 2.67	$ 2.61	$ 2.66
4,281	3,792	3,454	3,741
$ 8,878	$10,114	$ 9,029	$ 9,975
13.9%	17.2%	14.5%	15.2%

Costs in 1956 in Ontario Pharmacies

3	36 Pharmacies	Under 5,000 Population 4 Pharmacies
Sales	$86,426—100.0%	$94,283—100.0%
Cost of Goods Sold	59,980— 69.4%	64,207— 68.1%
Gross Margin	26,446— 30.6%	30,076— 31.9%
EXPENSES:		
Proprietor's or Manager's Salary	$ 6,050— 7.0%	$ 5,656— 6.0%
Employees' Wages	8,815—10.2%	8,108— 8.6%
Rent	2,161— 2.5%	1,603— 1.7%
Advertising	778— 0.9%	471— 0.5%
Delivery	605— 0.7%	377— 0.4%
Depreciation on Fixtures and Equipment	1,124— 1.3%	848— 0.9%
Heat, Light, Power	432— 0.5%	566— 0.6%
Taxes	259— 0.3%	94— 0.1%
Insurance	346— 0.4%	283— 0.3%
Interest	432— 0.5%	189— 0.2%
Repair	259— 0.3%	283— 0.3%
Telephone	259— 0.3%	189— 0.2%
Bad Debts	86— 0.1%	94— 0.1%
Miscellaneous	1,210— 1.4%	1,320— 1.4%
Total Expenses	$22,816—26.4%	$20,082—21.3%
NET PROFIT	$ 3,630— 4.2%	$ 9,994—10.6%
Add: Other Income	$ 242	
Proprietor's Salary	$ 6,050	$ 5,656
TOTAL INCOME	$ 9,922($9,883)	$15,650($15,731)
Value of Merchandise Stock	$16,324	$16,112
Annual Rate of Turnover	3.9	4.0
Average Value of Fixtures	$ 5,291	$ 4,554
Average Accounts Receivable	$ 1,119	$ 1,201
Average Accounts Payable	$4,617	$ 3,661
Average Price per Rx	$ 2.57	$ 2.61
Average Number of Rx	6,207	5,543
Average Sales of Rx	$15,985	$14,516
Ratio of Rx Sales to Total Sales	18.3%	15.3%

With Sales Volume $75,000 to $100,000

5,000 to 20,000 Population 5 Pharmacies	20,000 to 100,000 Population 8 Pharmacies	100,000 to 500,000 Population 9 Pharmacies	TORONTO 10 Pharmacies
$84,810—100.0%	$88,507—100.0%	$87,004—100.0%	$81,908—100.0%
59,028— 69.6%	61,070— 69.0%	60,990— 70.1%	56,845— 69.4%
25,782— 30.4%	27,437— 31.0%	26,014— 29.9%	25,063— 30.6%
$ 6,785— 8.0%	$ 5,930— 6.7%	$ 6,177— 7.1%	$ 6,061— 7.4%
8,990—10.6%	9,293—10.5%	8,092— 9.3%	9,255—11.3%
1,442— 1.7%	3,098— 3.5%	1,653— 1.9%	2,293— 2.8%
848— 1.0%	1,062— 1.2%	957— 1.1%	491— 0.6%
254— 0.3%	442— 0.5%	696— 0.8%	983— 1.2%
763— 0.9%	1,239— 1.4%	1,479— 1.7%	819— 1.0%
594— 0.7%	354— 0.4%	435— 0.5%	491— 0.6%
339— 0.4%	266— 0.3%	174— 0.2%	246— 0.3%
424— 0.5%	442— 0.5%	435— 0.5%	246— 0.3%
170— 0.2%	531— 0.6%	522— 0.6%	328— 0.4%
424— 0.5%	266— 0.3%	435— 0.5%	164— 0.2%
170— 0.2%	177— 0.2%	348— 0.4%	328— 0.4%
85— 0.1%		87— 0.1%	82— 0.1%
1,187— 1.4%	1,239— 1.4%	1,131— 1.3%	1,065— 1.3%
$22,475—26.5%	$24,339—27.5%	$22,621—26.0%	$22,852—27.9%
$ 3,307— 3.9%	$ 3,098— 3.5%	$ 3,393— 3.9%	$ 2,211— 2.7%
$ 32	$ 515	$ 336	$ 139
$ 6,785	$ 5,930	$ 6,177	$ 6,061
$10,124($10,002)	$ 9,543($9,261)	$ 9,906($9,629)	$ 8,411($8,212)
$19,450	$16,987	$15,631	$14,641
3.2	3.6	4.2	4.5
$ 3,800	$ 4,501	$ 7,165	$ 4,735
$ 1,365	$ 781	$ 1,882	$ 607
$ 5,805	$ 3,473	$ 6,925	$ 3,707
$ 2.76	$ 2.88	$ 2.80	$ 2.22
4,360	6,021	6,200	7,355
$12,050	$17,432	$17,377	$16,394
14.6%	19.5%	19.6%	20.0%

Costs in 1956 in Ontario Pharmacies

4	56 Pharmacies	Under 5,000 Population 7 Pharmacies
Sales	$145,662—100.0%	$128,631—100.0%
Cost of Goods Sold	96,283— 66.1%	90,299— 70.2%
Gross Margin	49,379— 33.9%	38,332— 29.8%
EXPENSES:		
Proprietor's or Manager's Salary	$ 8,157— 5.6%	$ 7,075— 5.5%
Employees' Wages	19,227—13.2%	12,477— 9.7%
Rent	3,496— 2.4%	3,216— 2.5%
Advertising	1,602— 1.1%	1,158— 0.9%
Delivery	1,602— 1.1%	771— 0.6%
Depreciation on Fixtures and Equipment	1,457— 1.0%	1,029— 0.8%
Heat, Light, Power	583— 0.4%	515— 0.4%
Taxes	291— 0.2%	257— 0.2%
Insurance	583— 0.4%	515— 0.4%
Interest	291— 0.2%	257— 0.2%
Repair	437— 0.3%	257— 0.2%
Telephone	437— 0.3%	257— 0.2%
Bad Debts	291— 0.2%	
Miscellaneous	2,768— 1.9%	1,672— 1.3%
Total Expenses	$41,222—28.3%	$29,456—22.9%
NET PROFIT	$ 8,157— 5.6%	$ 8,876— 6.9%
Add: Other Income	$ 295	$ 259
Proprietor's Salary	$ 8,157	$ 7,075
TOTAL INCOME	$16,609($16,606)	$16,210($15,688)
Value of Merchandise Stock	$22,185	$21,690
Annual Rate of Turnover	4.3	4.3
Average Value of Fixtures	$ 8,393	$ 5,776
Average Accounts Receivable	$ 4,310	$ 1,860
Average Accounts Payable	$ 8,422	$ 5,579
Average Price per Rx	$ 2.64	$ 2.69
Average Number of Rx	11,031	8,956
Average Sales of Rx	$29,231	$24,114
Ratio of Rx Sales to Total Sales	22.0%	20.0%

With Sales Volume Over $100,000

5,000 to 20,000 Population 7 Pharmacies	20,000 to 100,000 Population 17 Pharmacies	100,000 to 500,000 Population 16 Pharmacies	TORONTO 9 Pharmacies
$156,674—100.0%	$155,387—100.0%	$143,695—100.0%	$135,468—100.0%
103,249— 65.9%	98,205— 63.2%	92,971— 64.7%	96,318— 71.1%
53,425— 34.1%	57,182— 36.8%	50,724— 35.3%	39,150— 28.9%
$10,341— 6.6%	$ 8,702— 5.6%	$ 7,329— 5.1%	$ 7,586— 5.6%
17,078—10.9%	20,045—12.9%	23,566—16.4%	16,392—12.1%
2,507— 1.6%	3,729— 2.4%	3,736— 2.6%	3,387— 2.5%
2,194— 1.4%	2,331— 1.5%	1,725— 1.2%	677— 0.5%
1,567— 1.0%	2,020— 1.3%	1,437— 1.0%	1,761— 1.3%
1,097— 0.7%	2,020— 1.3%	1,150— 0.8%	1,355— 1.0%
470— 0.3%	621— 0.4%	718— 0.5%	678— 0.5%
313— 0.2%	311— 0.2%	287— 0.2%	406— 0.3%
783— 0.5%	777— 0.5%	431— 0.3%	406— 0.3%
313— 0.2%	311— 0.2%	287— 0.2%	542— 0.4%
313— 0.2%	621— 0.4%	431— 0.3%	271— 0.2%
313— 0.2%	311— 0.2%	431— 0.3%	406— 0.3%
156— 0.1%	155— 0.1%	718— 0.5%	
3,133— 2.0%	3,419— 2.2%	2,730— 1.9%	2,574— 1.9%
$40,578—25.9%	$45,373—29.2%	$44,976—31.3%	$36,441—26.9%
$12,847— 8.2%	$11,809— 7.6%	$ 5,748— 4.0%	$ 2,709— 2.0%
$ 123	$ 3	$ 595	$ 476
$10,341	$ 8,702	$ 7,329	$ 7,586
$23,311($24,144)	$20,514($19,949)	$13,672($14,605)	$10,771($10,910)
$18,456	$23,916	$23,379	$20,478
5.7	3.6	3.3	5.0
$ 3,888	$ 9,452	$10,050	$ 8,835
$ 5,081	$ 3,148	$ 6,401	$ 1,888
$ 7,469	$10,260	$ 7,491	$ 8,746
$ 2.54	$ 2.81	$ 2.67	$ 1.66
8,942	10,338	12,907	8,548
$22,790	$29,075	$34,586	$14,209
16.6%	24.5%	23.5%	12.0%

reached. Here we find it dips considerably. Total Income is the highest in centres below 5,000 population in the sales category of $75,000 to $100,000, but in all other sales categories the highest total income is in centres with population between 5,000 and 20,000.

The correlation is not perfect, but true in a broad sense, that employees' wages, as a percentage of sales, increase with an increase in the size of the population centre. For example, in Chart #2, the differential between centres of 5,000 to 20,000 population and centres of 100,000 to 500,000, is an even 2% or $1,240 for virtually the same sales volume.

Generally speaking, gross margin is the highest in pharmacies in population centres of 5,000 to 20,000. No doubt this is the result of the nature of the competitive factor, that is, a larger number of people per pharmacy. On the other hand, in Chart #1, the lowest gross margin was obtained in the pharmacies located in centres of less than 1,000 population and no competitors. There is something here crying for correction. True, presciption sales are low among this group, averaging only 9.5% of sales and the average prescription price almost the lowest of any place in Canada, but the low gross margin of 27.5% indicates that either the product mix of sales consists of a large amount of sales of low margin items such as cigars, cigarettes, and magazines, not to incorrect pricing policies.

An interesting fact revealed by the Survey is that the lower the sales volume the larger the number of pharmacists who own their own building. In Chart #1, 50% own their own building, Chart #2, 42%, Chart #3, 16%, and Chart #4, 28%.

In the main, total expenses gravitate upward in each sales category with an increase in the size of the population centre. In most cases it is the result of higher employees' wages, no doubt attributable to higher living costs in the larger centres.

Bracketed Figures

In the various charts the statistical total income in given as the sum of net profit, other income, and proprietor's salary. The bracketed figure following total income is the average of the actual total income dollars of all pharmacies in the group.

Prescription Prices

Prescription prices appear to be erratic and chaotic, the average prescription price ranging from a low of $1.66 to a high of $3.02. The lowest prescription prices appear in Toronto and in centres of less than 1,000 population. There may be many reasons for variation in the price of the average prescription. Certainly the nature of the prescription must always be taken into consideration. The economic status of the population is another consideration. I am acquainted with a physician in an area where wages are relatively low. To obviate the charge that prescription prices are high, he prescribes only a few days' supply of relatively expensive medication and then permits the patient to repeat the prescription. Hence, the average prescription price of the local pharmacist is low but it does not indicate that the prices charged are lower than those charged elsewhere.

5 ONTARIO—1956

Cost of Goods Sold	Employees' Wages	Rent	Miscellaneous Expenses	All Other Expenses	Total Expenses*	TOTAL INCOME	Total Income as a % of Sales	Average Sales	Average Inventory	Number of Prescriptions	Sales of Prescriptions	Price per Rx	Rx Sales as a % of Total Sales
A—27 Above Standard, 7 Below						**Sales Volume $20,000 to $50,000**							
67.9%	5.0%	2.1%	1.1%	5.2%	13.4%	$ 8,101	19.6%	$41,256	$10,430	2,543	$ 6,631	$2.61	15.2%
72.6%	3.9%	2.4%	1.3%	8.0%	15.6%	$ 4,540	11.6%	$38,828	$ 9,144	1,869	$ 4,275	$2.28	11.3%
4.7%	1.1%	0.3%	0.2%	2.8%	2.2%	$ 3,561	8.0%	$ 3,428	$ 1,286	674	$ 2,346	$0.33	3.9%
B—41 Above Standard, 6 Below						**Sales Volume $50,000 to $75,000**							
68.3%	8.2%	2.4%	1.2%	5.1%	16.9%	$ 9,513	15.1%	$62,680	$11,701	3,872	$ 9,737	$2.51	15.7%
73.0%	9.6%	2.4%	1.8%	4.9%	18.7%	$ 5,621	8.9%	$62,601	$10,885	2,736	$ 7,472	$2.73	12.0%
4.7%	1.4%	0.0%	0.6%	0.2%	1.8%	$ 3,892	6.2%	$ 79	$ 816	1,136	$ 2,265	$0.22	3.7%
C—29 Above Standard, 7 Below						**Sales Volume $75,000 to $100,000**							
68.3%	9.9%	2.2%	1.3%	5.2%	18.6%	$11,443	13.2%	$86,215	$15,752	6,217	$16,474	$2.65	25.8%
73.0%	11.3%	3.5%	1.5%	5.7%	22.0%	$ 4,423	5.0%	$87,041	$18,328	6,156	$13,216	$2.14	15.3%
4.7%	1.4%	1.3%	0.2%	0.5%	3.4%	$ 7,020	8.2%	$ 826	$ 2,576	61	$ 3,258	$0.51	10.5%
D—52 Above, 4 Below						**Sales Volume Over $100,000**							
64.0%	12.4%	2.4%	2.0%	5.2%	22.0%	$17,900	12.0%	$148,262	$22,258	11,783	$31,061	$2.63	22.8%
66.3%	23.0%	2.7%	1.5%	4.9%	32.1%	$ 4,751	4.2%	$111,854	$18,500	4,514	$10,031	$2.96	12.5%
2.3%	10.6%	0.3%	0.5%	0.3%	10.1%	$13,149	7.8%	$ 36,408	$ 3,758	7,269	$21,030	$0.33	10.3%

*Exclusive of Proprietor's Salary

Chart Number 5

In this chart, pharmacies with total income above the standard proprietor's compensation (see Chart 28, page 50, C.Ph.J., August, 1957) are separated from those with total income below the standard proprietor's compensation. For purposes of comparison, significant data for each are given and the differential between each indicated. This method pin-points the areas in which a different management decision produced very different, and sometimes, disconcerting results. The total cost of operating a pharmacy should always include the proprietor's compensation. However, since one pharmacist may take a high salary and another a low one (which of course makes no difference as far as total income is concerned) for the purpose of comparing all other expenses, except the proprietor's salary, the proprietor's salary is **not** included in the Total Expenses column.

In all four groups, A, B, C, and D, the differential in the cost of goods sold plus the differential in total expenses accounts for the differential in total income. This differential ranges from $3,561 in Group A to $13,149 in Group D or from the price of a new moderately priced automobile to the price of two Cadillacs.

The differential in the cost of goods sold, 4.7% in Groups A, B, and C, and 2.3% in Group D, is difficult to account for other than the result of a different product mix of sales. The difference in the volume of prescription sales to total sales is not great in Groups A and B but it is over 10% in Groups C and D. In Group C, there is a differential of approximately 50 cents in the average price per prescription. Inasmuch as 6,000 prescriptions are involved, here is a source of $3,000 more total income in itself, and this addition to sales would reduce the cost of goods sold to 70.6% of sales, leaving a differential of only 2.3% between the cost of goods sold in the above and below standard pharmacies in this group. In Group D, the average prescription price was higher in the below standard group but the average sales of prescriptions was $21,000 less. A healthy increase in prescriptions volume would eliminate the differential in the costs of goods sold between the above and below standard pharmacies in this group.

However, the chief difficulty in Group D seems to be overstaffing, there being a better than 10% differential in employees' wages between the above and below standard pharmacies. Three of the four pharmacies in this group reported that they were self-service.

In Group A, two are in centres of less than 1,000 population and have no competitors, three are in centres of less than 1,000 population and each has a competitor. Of the other two, one is in a city of 35,000 and the other in Toronto.

H. J. FULLER.

AN INVITATION

Pharmacy in Ontario faces a new crisis.

First, according to the Full-Stauffer Hospital Pharmacy Survey, 48 hospitals report that they do not employ a pharmacist. Of these, 22 have between 50 and 99 beds, while 5 have over 1000 beds. Only 3 in the 50-99 bed group state that prescriptions are filled at local pharmacies and in 21 hospitals the responsibility for the distribution of all medicaments is vested in the superintendent of nurses.

Second, the Ontario Government proposes to launch the Plan for Hospital Care in January, 1959 and at the present time the Ontario Pharmacy Act does not cover pharmacies in hospitals.

The economic implications of this proposed hospital insurance plan, relating to pharmaceutical service, can no longer be ignored. Increased use of hospital beds will demand an increase in these services and the present shortage of legally qualified pharmacists points out the serious complications which will arise. If safe, adequate, legally qualified pharmaceutical service is to be provided for the seriously ill members of our communities, who are unfortunate enough to be hospitalized, some measure of cooperation between the retail pharmacists and the hospitals must be found, in areas where no legally qualified pharmaceutical service is maintained.

Pharmacists now engaged in hospital service are greatly concerned about this problem and at the same time are mindful of their responsibilities with regard to this issue. The lack of organized information on the pharmaceutical services in hospitals as well as insufficient knowledge of the administration and operation of hospital pharmacies have made retail pharmacists reticent to accept opportunities to assist some small hospitals. Hospital pharmacists, therefore, have been seeking some means whereby this information and knowledge could be made more readily available.

With this thought in mind, the Canadian Society of Hospital Pharmacists, Ontario Branch, planned the program for the Hospital Pharmacy Section at the coming meeting of the Ontario Hospital Association which is to be held at the Royal York Hotel, Toronto on Tuesday, October 29, 1957. The Executive has been fortunate in obtaining the services of several well known hospital administrators and other noted hospital personnel such as Mr. R. Ferguson, B.A., D.H.A., Administrator of the Humber Memorial Hospital, Toronto, Mr. John J. Zugich, B.Sc. H.P.H., Assistant Administrator, University Hospital, Ann Arbor, Michigan, Mr. E. R. Willcocks, Superintendent, Toronto East General and Orthopaedic Hospital, Toronto, and Miss E. Howard, Director of Nursing, the New Mount Sinai Hospital, Toronto. Papers and panel discussion on the following topics will be heard: "Effect of Proposed Insurance on Hospital Pharmacy," "The Value of Retail Pharmacy Service to the Smaller Hospital" and "Should the Ontario Pharmacy Act Cover Hospital Pharmacies." "A Rx for Service" is the subject of an address by Mrs. Charles McLean, Past President of the Ontario Hospital Association, luncheon speaker for the Section.

A cordial invitation is extended to all retail pharmacists in the Province of Ontario to attend these meetings and join in the discussions during the program. A large attendance is anticipated and the Executive of the Canadian Society of Hospital Pharmacists, Ontario Branch, urges YOU to take this opportunity to participate in these discussions and help plan a course of action which will be beneficial to all—patients, pharmacists and hospitals.

PHYLLIS TAKENAKA, President,
Canadian Society of Hospital Pharmacists, Ontario Branch.

GATHERING FACTS CONCERNING PRESCRIPTIONS

The article **Professional Fees** appearing in the May issue of this Bulletin has provoked considerable comment, local, provincial, national, and international. You may recall that it suggested that a professional way to price prescriptions would be to charge each patient a professional fee of $2.00 plus the cost of the ingredients at wholesale price of the usual minimum quantity, plus the cost of the container. The $2.00 professional fee was taken as a point of departure. It may be too high, it may be to low. Hence, we are conducting a Survey to try to find out what would happen to prescription prices and the percentage distribution of prescriptions through various price ranges **If the New Concept of Professional** Fees as outlined in the May issue of the Bulletin and in the July issue of the Canadian Pharmaceutical Journal should be applied.

We need a large number of pharmacists to help us in this matter. Forms have been prepared and the only information we ask is that the cost price of each prescription dispensed be listed in one column and the actual price obtained for it be listed in the other. By cost price is meant the wholesale cost, using the usual minimum wholesale quantity as a base, plus container. A separate sheet has been prepared for each of the following classifications:

tablets	compounded prescriptions
drops (eye, ear, nose)	capsules
ointments	emulsions
powders	suspensions
suppositories	solutions

To be effective, the data should be gathered from all pharmacies participating for prescriptions dispensed during the same period of time. Hence, we have designated November 1 through 16 as the test period. To price a prescription by almost any method now in use, it is necessary to calculate the cost of the ingredients. To record such a fact, together with the price actually charged will take only a few extra seconds of your time for each prescription.

If you would like to participate in this very necessary Survey, a postcard to the editor will bring a set of forms and a return envelope to your pharmacy.

H. J. FULLER.

MESSAGE FROM THE REGISTRAR

When Council meets on November 4th, five pharmacists will take their places for the first time as District Representatives.

District No. 5—W. Isaacson, Toronto (1924).
District No. 7—C. A. Leggett. Bolton (1926).
District No. 8—H. A. Jessop, Waterdown (1928).
District No. 14—W. E. Love, Port Arthur (1947).
District No. 15—R. W. Knaggs, Long Banch (1922).

H. M. CORBETT, Registar-Treasurer.

Degree Conferred

On June 6, New York University conferred the degree of LL. M. on Allan W. Sutherland, 62A Bernard Avenue, Toronto. Mr. Sutherland received his Phm.B. from the University of Toronto in 1949 and later graduated from the Faculty of Law of the University of Toronto and further pursued the study of law at New York University.

XU

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Jenkins, B.W.: GP 9(6):66

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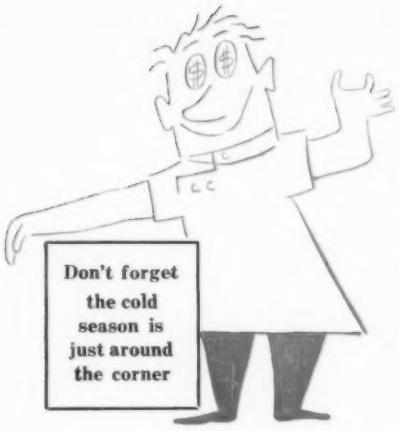

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